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PSAMMOCHARIDAE

(*Spider-Wasps*)

Notes and Descriptions

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No. 4—*Psammocharidae*¹

(Spider-Wasps): *Notes and Descriptions*

BY NATHAN BANKS

In continuation of previous studies on the fine collection of *Psammocharidae* in the Museum of Comparative Zoölogy I present descriptions of some new genera and species and notes on others. Neotypes are made for two of Say's species and descriptions of varietal forms. Some of these varietal forms illustrate the faunal divergence of the New England area, which I have previously noted in a *Myrmecleonid*, *Hesperoleon abdominalis* Say. Descriptions are given of the males of three West Indian species previously known only from the females. Keys are made for the species of *Dipogon* and for the males of the species of *Ageniella* known to me from the Eastern States. A comparison of our large black Arizona *Pepsis* with a series of both sexes of the related Cuban form and the South American *Pepsis grossa* shows that our form is a distinct species.

a. NEARCTIC

BATAZONUS INTERRUPTUS Say

Say's diagnosis says "metathorax at tip bifasciate with yellow", and the pleura with two yellow spots. It came from Indiana. This is the form common in the middle states, west to Kansas and Nebraska, and in Texas, North Carolina, etc. I have selected as neotype a female from Chicago, collected by Prof. C. T. Brues, which agrees with the description.

There is a form in the northeastern states which I call

BATAZONUS INTERRUPTUS var. *CRESSONI* var. nov.

The thorax and propodeum are black, apical margin of propodeum with a broadly interrupted yellow line, no broad yellow band above it, no marks on pleura, the hind margin of pronotum narrowly yellow, and the scutellum yellow. The yellow on each side of face in the typical form is here reduced to a slender orbital line, the clypeus is usually black. The abdomen shows no pale at bases of segments, and the base of first segment is usually black. The wings are darker. In the male the yellow is likewise greatly reduced. The size is generally smaller.

The holotype is a female from Holliston, Mass., 4 August. Paratypes from Holliston from 24 June to 7 September; Wood's Hole,

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Mass., (C. T. Brues); Orient, N. Y., 12 July; White Plains, N. Y., Sept.; Wellesley, Mass., 13 July (Bolster); Trenton, N. J.; Penna. (Melsheimer); Charter Oak, Penna, 11 August, (Kirk); and Glen-carlyn and Falls Church in northern Virginia from 14 June to 30 July.

Type M. C. Z. No. 25729.

Pompilus ichneumonides D. T. (*ichneumoniformis* Patton) and *P. willistoni* Patton belong to *Batazonus*. The latter I consider as a form of *interruptus*, and the former as *B. narus* Cress.

ARACHNOPHROCTONUS FERRUGINEUS Say

Say says "Ferruginous; wings violet; pleura and metathorax black." Inhabits U. S. The type was a male.

A specimen which agrees with the above and also with the fuller description I have selected as neotype; it is from Falls Church, Va.; 23 July.

There are three varieties which can be separated on color; there is scarcely any difference in structure, and the genital plate of the male has a prominent median carina in all.

A. FERRUGINEUS var. UNICOLOR var. nov.

Some years ago Viereck labeled a specimen "unicolor"; it was from the far west. The body is wholly ferruginous except a small black mark at the base of the abdomen; nothing dark on thorax nor on propodeum, nor even a trace of dark bands on abdomen; moreover the wings are a yellowish brown, very much paler than those of the typical form. The structure appears to be the same except that the clypeus is not so deeply emarginate in the middle. The holotype is from Oak Creek Cañon, Arizona, 6000 ft., July (F. H. Snow) in the M. C. Z. no. 25730. Others are from Tucson, and southern Arizona (Bequaert).

A. FERRUGINEUS var. ANNEXUS var. nov.

From parts of Texas come specimens intermediate in some ways between *unicolor* and typical *ferrugineus*. There is no black on thorax nor on propodeum, but the abdomen above shows at least traces of a dark band at end of first and second segments. The wings are just as dark as in typical form, which separates it from *unicolor*.

Holotype is from Fedor, Lee Co., Texas, June 15, 1909 (Birkmann); paratypes from Fedor in June and September, also Dallas, Texas (Boll); Austin, Texas, 13 October (Brues); and Davis Mts., Texas, 28 June (Englehart). Type, M. C. Z. no. 25731.

Typical *ferrugineus* also occurs in Texas.

A. FERRUGINEUS var. NIGRESCENS var. NOV.

In the northeastern part of the country there is a much darker form; the wings are nearly black; the abdomen, in the female, shows the dark bands at tips of first and second segments. The thorax and propodeum are wholly black above and below, and on pleura; the femora are at least partly black, the hind femora often wholly so; in the female the tip of tibia and of some tarsal joints also black; the antenna is nearly wholly black, basal joint only remaining pale; in the male the basal segment may be more black than usual; in females the face above the antennae is more or less darkened. The clypeus is less deeply emarginate than in typical form; otherwise I note no structural difference.

The holotype is a female from Arlington, Va., 11 August; paratypes from Fort Lee district, N. J., August; Woods Hole, Mass., (Brues); Holliston, Mass., 27 July (Bks.), and Coldbrook, Conn., 14 July (Wheeler). Type, M. C. Z., no. 25732.

ANOPLIUS IMBELLIS spec. nov.

Black throughout, wings not darker at tip. Moderately long black hair on head, thorax, and propodeum; some stiff black bristles above tip of abdomen, and some slender curved ones above and below; no hair on pleura. Clypeus fully two and one-half times as broad as long, below truncate; antennae slender, third joint fully five times as long as broad, fourth about two-thirds as long as third. Face but little narrower above than below; a median line from antennae to the anterior ocellus, ocelli subequal, laterals a little nearer to each other than to eyes; pronotum deeply angulate behind; propodeum with no distinct median groove; abdomen moderately broad at base, slender and pointed at tip; mid and hind tibiae with short spines above; long spur of hind tibia nearly three-fifths of basitarsus; claws with short, erect tooth.

In fore wings the basal vein a little before the transverse, marginal cell more than length from the wing-tip, outer side straight; second submarginal cell a little longer than broad, receiving the first recurrent near tip; third submarginal triangular or nearly so, outer side convex, receiving the second recurrent (lightly curved) near middle.

Length ♀ 7.5 to 8.5 mm.

What is doubtless the male is similar, but little more slender; the antennae heavy, third joint about three times as long as broad; the third submarginal cell triangular or even pedicellate, shorter than the

second; the fourth and fifth ventral segments are covered with a brush of black hair, denser and longer on sides; the genitalia show a median plate, narrow, almost pointed at tip, and with a median, scarcely elevated ridge.

Length ♂ 7 to 8 mm.

Females from Corvallis, Oregon, 30 August, 4 September, and Hillsboro, Oregon, 25 September.

Males from Corvallis, 6, 25, 30 August, and Cornelius, Oregon, 4 August (Scullen coll.).

Type in Oregon Agricultural College, paratypes there and in Museum of Comparative Zoölogy no. 25734.

NANNOPOMPILUS TEXANUS spec. nov.

Similar in structure to *N. subviolaceus*. Abdomen only faintly bluish; fore wings scarcely smoky, but a broad dark band at tip; hind wings hyaline, smoky at tip. The body, antennae, and basal joints of legs sericeous, strong on lower face, clypeus, coxae, and posterior sides of propodeum. Antennae fully as short as in *N. subviolaceus*, head, thorax, and propodeum base as in that species. Venation similar, the second submarginal cell nearly as high as long; the recurrent veins end beyond middle of cells. The legs also similar, except that the spines of the comb are longer and thickened, and some a little curved, but none plainly spatulate. Marginal cell a little more than its length from tip of wing.

Length 7 mm.

One female from Richmond, Fort Bend Co., 22 June, (Bequaert) and another from Fedor, Lee Co., (Birkmann), both Texas. Type M. C. Z. No. 25895. Separated from *N. subviolaceus* by the much paler wings, sericeous body, stouter spines.

GYMNOCHIARES TEXANA spec. nov.

Black, pronotum slightly sericeous near hind border, and in front near collar; antennae dark ferruginous; wings slightly darkened throughout, tip a little darker, but not a band. Clypeus more than twice as broad as long, lower edge truncate; each side above clypeus the face is faintly sericeous, also the base of mandible; face with nearly parallel sides, except near top; a very distinct median groove from anterior ocellus to antennae, latter slender, third joint longer than vertex-width and one and a half times longer than fourth, latter but little

if any longer than fifth. Hind ocelli a little nearer the eyes than to each other; vertex with a few fine, long hairs; pronotum almost angulate behind, faintly depressed near hind border, and with a median groove reaching forward; pro and mesonotum without hair, as also the propodeum, latter with a very distinct median groove above; on the sides of the posterior slope and extending over the side are distinct but not strong transverse ridges, fading out toward center. Abdomen slightly compressed near tip, scarcely a trace of hair above toward tip, below a few near tip.

Legs slender as in other species; hind femora above near tip with three well-separated minute hair-pits, rather fainter than in allied species; hind tibia with only a few scattered minute spines, three minute ones on apical half of outer side; inner spur of hind tibiae not one-half as long as basitarsus, latter with only a trace of spines below.

Fore wings with marginal cell about its length from wing-tip, about two and a half times as long as broad, not quite as slender as in *birkmanni*; second submarginal cell fully one and a half times as long as broad, receiving the first recurrent a little before tip (nearer middle in *birkmanni*); third submarginal cell only a little longer than second, narrowed one-third above, receiving the second recurrent a little beyond middle; basal vein before transverse; cubitus extending out to margin as in other species. In hind wing the anal ends much before the fork.

Length 8 mm.

One female from Austin, Texas, May (Melander), Type, M. C. Z. 25704.

Similar in general to *birkmanni*, but readily separated by the groove on propodeum.

NANNOCHILUS gen. nov.

Two of our species described under *Ageniella*, *externa* and *congrua*, do not have a petiolate, but a sessile abdomen; they are therefore related to *Priocnemis*, but differ from that genus in lacking teeth or even bristles on the hind tibia. The claws are cleft, the inner process being very broad and obliquely truncate, and the pulvillus is extremely large. The venation is similar to that of *Pseudagenia*, but the basal vein is interstitial with the transverse. Besides *Ageniella externa* Bks. which is the genotype, there is *A. congrua* Cress., and a new species described herewith.

NANNOCHILUS OSORIA spec. nov.

Body black, abdomen sometimes more brown; antennae and legs brown, sometimes the mid and hind femora are somewhat rufous, and the front tibiae and tarsi are usually pale yellowish, all spurs pale, but not snow-white. Clypeus and lower face with silvery pubescence, little on vertex, but more prominent on coxae and on each side of propodeum behind the spiracles.

Fore wings rather evenly dusky, tip not darker; veins brown to black; hind wings more hyaline.

Clypeus broad, short, and truncate below; lateral ocelli a little nearer to each other than to eyes; antennae moderately long and slender, much as in *iridipennis*; pronotum arcuate behind, finely granular, a median groove on basal part; abdomen with short pale hair on venter; basal segment not nearly twice as long as broad behind.

Fore wings with submarginal cells much broader than the marginal cell; second submarginal about as broad as long, receiving the first recurrent near middle; third submarginal hardly longer below, but larger, the posterior side almost angulate in middle, so the cell is no broader below than above, receiving the second recurrent vein near middle; basal vein interstitial with nervellus, its lower part not strongly curved. In hind wings the anal vein ends before the fork of cubitus.

Length of fore wing 5 to 6.5 mm.

Holotype male from Falls Church, Virginia, 12 July; paratypes from the same locality from 28 June to 7 September; also from Great Falls, Virginia, 20 June, and Chain Bridge, Virginia, 23 June. Type M. C. Z. No. 25907.

Three females agree in general; dull black, sericeous, venation as in male, spurs pale, clypeus truncate below; third antennal joint a little longer than fourth; pronotum broadly arcuate behind; inner spur of hind tibiae hardly one-half of basitarsus; basal segment of abdomen broad and sessile.

Length of fore wing of female, 6 mm.

All from Falls Church, Virginia, 13 September.

PRIOCNEMIS OCCIDENTIS spec. nov.

Closely related to the Eastern *P. nothus*; in color the wings are uniformly darker and the abdomen is entirely reddish, the last few segments not darkened as in *nothus*. The venation the same as that of *nothus* even to the bend in the lower part of the submarginal cross-

above the middle one with more or less distinct teeth; last joint of mid and hind tarsi bare, the claws toothed; no distinct "beard" under head; venter of female with a groove on second segment; the mesosternum not prominent laterally.

Type *Priocnemis faectus* Cress.

Also included are *P. agnoideus*, *arizonica*, *arcuatus*, *holonis*, n. sp., *placitus*, *relictus*.

PRIOPHANES HOLONIS spec. nov.

Black; abdomen reddish all over; wings hyaline, apex broadly dusky.

In general close to *P. directa* of Texas; the pronotum angulate behind, the spurs black, legs and antennae entirely black; and head, thorax, and abdomen of the same shape as *P. directa*. It differs in having the teeth on hind tibiae much smaller, hardly noticeable, except from inner side, and more especially in venation. The marginal cell is longer, its outer side more oblique, and not quite its length from tip of wing (in *directa* more than its length from tip of wing); the second and third submarginal cells are proportionally longer than in *directa*, and the lower outer corner of third submarginal cell is scarcely the length of third submarginal from the outer margin of wing (in *directa* more than length of third submarginal cell from outer margin of wing). The first recurrent ends at or before middle of second submarginal, and second recurrent before middle of third submarginal cell. The basal vein, which is curved as in *directa*, ends only a little before the transverse vein.

Length 7.5 mm. to 8.5 mm.

Holotype from Urbana, Illinois, 20 July (Bequaert); paratypes Columbus, Ohio, August (Bequaert), also 6, 21 July (Gillaspy); and MacCollum, Coweta Co., Georgia, 8 June (Bequaert). Type M. C. Z. 25892, paratypes there and Ohio State University.

AGENIELLA DELICATA spec. nov.

Dull black, abdomen with all of second, most of first, and part of third segments yellowish rufous; tip of abdomen with white spot; mandibles yellowish at tips; antennae brown, basal joint pale yellow beneath; all coxae black, rest of front legs pale yellowish, mid legs with tibiae and femora pale, tarsi brown, hind legs with femora pale, tibiae and tarsi dark brown; spurs of hind legs dark brown, others paler; wings hyaline, tip not darker, veins yellowish to brown.

Clypeus and lower face with silvery pubescence; notum and pleura somewhat sericeous.

Body slender; clypeus broad, somewhat rounded below; lateral ocelli much nearer each other than to eyes; vertex convex; antennae long and slender, third joint hardly longer than fourth; pronotum deeply arcuate behind; propodeum finely granular, median groove faint; basal segment of abdomen more than twice as long as broad behind.

Fore wings rather short, the submarginal cells not as broad as the marginal, latter nearly its length before tip of wing; second submarginal about one-third longer than broad, receiving the first recurrent vein near base; third submarginal plainly longer on lower side than second, but narrowed nearly one-third above, receiving the second recurrent (almost angulated) a little before middle; lower part of basal vein bulging forward, ending a little before the nervellus.

Mid and hind legs very slender and long, smooth, inner spur of hind tibiae two-thirds of basitarsus.

Length of fore wing 4.2 mm.

One male from Falls Church, Va., 22 August. Type M. C. Z. No. 25910.

AGENIELLA RESTRICTA spec. nov.

Body dull black, more or less sericeous, most noticeable on the coxae and pleura; clypeus and lower face with dense white pubescence; abdomen with basal two-thirds of second segment yellowish rufous; tip of abdomen with a white spot; legs brown to black, front legs with tibiae and tarsi pale yellowish, hind spurs dark, others paler. Fore wings dusky, tip rather darker, veins dark brown; hind wings almost hyaline.

Body slender; clypeus truncate below; antennae slender, third joint a little longer than the fourth, on the style of *A. iridipennis*; lateral ocelli plainly nearer each other than to eyes; vertex rather strongly convex; pronotum arcuate behind; propodeum finely granular, sloping toward tip, median line scarcely visible; abdomen slender, basal segment more than twice as long as broad behind.

In fore wings the submarginal cells as broad as the marginal cell, latter not quite its length from the tip of wing; second submarginal nearly one and a half times as long as broad, receiving the first recurrent before basal third; third submarginal cell little longer below than second, but broader, narrowed hardly one third above, receiving the second recurrent (nearly evenly curved) before middle; lower part of

The medius reaches to the outer margin; the marginal cell is strongly angled at the end of the second submarginal cell, and broadest at this point.

Subgenus *Dipogon*—3

2. Forewings wholly dark, nearly black. *papago*
Forewings clear with a narrow dark band over the basal and transverse veins, and a large dark spot over marginal cell and the two or more cells behind it. *pulchripennis*
3. Thorax yellowish to rufous. 4
Thorax black. 5
4. Head and abdomen black; antennae rufous, tips of joints narrowly black; legs partly black. *texanus*
Head rufous, abdomen black; antennae rufous, no dark bands; legs wholly yellowish. *gruenicheri*
5. Face, mesonotum, and abdomen with appressed grayish to yellowish pubescence; hair basket pale; front legs partly pale. 6
Face, thorax, and abdomen without such pubescence; fore wings clear with two bands. 7
6. Across face and on vertex are erect black bristles; fore wings brown, tip snow-white; propodeum and pleura also sericeous. *sericca*
No such bristles on face and vertex; extreme wing-tip faintly dark, no snow-white; propodeum and pleura without appressed hair. *brevis*
7. Front legs largely yellowish, also mandibles, and lower edge of clypeus. *caliptera*
Front legs, clypeus, and mandibles black. *sayi*

ADIPOGON, subgenus nov. has the basket of curved hairs on under side of head as in typical *Dipogon*, but the median vein of fore wing does not extend to the outer margin, and the marginal cell is not angled below.

Type is *Pompilus pulchripennis* Cresson.

PEPSIS PATTONI spec. nov.

Our large black Arizona *Pepsis* has been identified by Fox and myself as *P. obliqu rugosa* Lucas, a form described from Cuba. A few years ago Salman considered both to be *P. grossa* Fabr. of northern South America. With a series of both sexes of the three forms I consider each a separate species.

As with the others, the wings are black with a narrow pale band at tip, not as broad, and in the female not as white as in *obliqu rugosa*. On the propodeum the side tubercles are very prominent, sometimes almost pointed, in *obliqu rugosa* much lower and less noticeable. At

the middle of the turn there is in both species a high ridge; in *obliquerrugosa* its top is straight or a little convex, in *pattoni* the top is plainly emarginate in the middle. The oblique ridges on the propodeum so characteristic of *obliquerrugosa*, are fewer, less oblique, and sometimes none oblique. In *pattoni* the third joint of antennae in female is a little shorter than in *obliquerrugosa* in specimens of same wing-length. In the male the parameres of the genitalia are slender and tapering toward tip; in *grossa* (see Lucas figure 24) they are heavier, and not at all tapering; in *obliquerrugosa* the parameres are not as broad as in *grossa*, but do not taper as much as in *pattoni*; in the latter the tip of the subgenital plate is broadly convex, in the Cuban form it is plainly emarginate in middle. The females of all three forms have long, stiff, curved bristles under the front femora, and with our *nephele* and a few South American species they form a natural group. Lucas placed the male of *nephele* as *formosa* and says that the genitalia are the same as in *grossa*, and gives no separate figure. The males of this section have the subgenital plate slender and furnished with a broad dense crest of long black hairs.

P. obliquerrugosa is somewhat the largest of the three species, fore wing sometimes 45 mm. *P. pattoni* sometimes about 42 mm., frequently 40 mm. *P. grossa* rarely 40 mm., often near 35 mm.

Holotype of *P. pattoni* ♀ is from Palmerlee, Arizona, July (Biedermann coll.), M. C. Z. No. 25805; allotype from southern Arizona; paratypes are from Palmerlee, Tucson, Ola, Ft. Grant, Pinalero Mts., Santa Catalina Mts., all Arizona, from late June to September, taken by Snow, Bequaert, Morse, and Wheeler. One from mountains near Pomona, California, by H. C. Fall.

b. ANTILLEAN

BATAZONUS GUNDLACHI Cress.

Described from female only.

Male. It is very similar to female, and marked the same; thorax and abdomen brownish red, the clypeus is reddish in middle, above antennae are two short curved dark streaks, there is some yellow each side of scutellum (as well as the post-scutellum); a large yellow spot just above base of mid coxae; propodeum broadly yellow across apical half; abdomen black at extreme base, and faintly dark across tip of first segment, a broad yellow band across base of third segment above and below; legs reddish, except the paler tarsi which are dark at tips

of joints; inner spur of hind tibia about three-fifths of basitarsus. The third submarginal cell is much longer than high, as in the female.

Length of fore wing 13 mm.

Allotype from San Blas, Trinidad Mts., Cuba, 24 April (G. E. Folk).

BATAZONUS HOOKERI Rohwer

Described from female only.

The male is largely yellowish; there is a triangular black spot below antennae, two broad black stripes above, narrowly separated; two yellow lines on mesonotum, the mesopleura has two slightly separated elongate, yellow spots; the propodeum above is yellow, black at extreme base, usually extended back in middle to divide or partly divide the yellow. The dark bands on abdomen above are brown to black, occupying hardly one-half of the segment, basal segment dark only at tip; coxae black, with a yellow mark; femora partly dark, tip pale; tips of tarsal joints black; inner spur of hind tibiae about four-fifths of the basitarsus.

Length of fore wing 5 to 7 mm.

Allotype from Hatillo, Puerto Rico, January; others from Mayaguez in November and Cartagena in May, both Puerto Rico, all through Mr. Ramos.

PSAMMOCHARES PARSONSI spec. nov.

Body, legs, and antennae wholly deep black; wings mostly black, but paler in third discoidal cell and toward base both in front and behind; hind wings strongly fumose.

Clypeus over three times as broad as long, nearly truncate below, a few hairs on lower part; ocelli in a low triangle, the laterals a little nearer to the eyes than to each other; a median line above base of antennae, latter slender, third joint equal vertex-width, last joint only about one-half of third joint; vertex with a few long, erect hairs, shorter black hair on front.

Pronotum broadly arcuate behind; mesonotum with a few long hairs each side, pleura with only scattered short hairs; propodeum short, no distinct median groove, with rather short hair above.

Abdomen hairy toward tip below, above with stiff bristles just before tip, otherwise a few hairs on venter near hind border of segments.

Femora smooth, without hairs; front tarsi with a distinct, though short comb, a spine at middle of the second tarsal joint; hind tibiae quite heavily spined; two irregular rows above, some as long as the

width of the joint; inner spur of hind tibia more than one-half of basitarsus.

In fore wings the marginal cell is about its length before tip; second submarginal cell longer below than high, one-third narrowed above, receiving the first recurrent vein near tip; third submarginal cell only a little longer than second and likewise narrowed one-third above, receiving the second recurrent vein (evenly curved) beyond the middle. In hind wings the anal ends beyond the fork.

Length of fore wing 10 mm.

Females from Buenos Aires, Trinidad Mts., Cuba, 17 to 23 June (C. T. Parsons).

In appearance like *P. perpilosus* but easily separated by absence of hairs on femora and very much less hair on body. Type M. C. Z. No. 25742.

NOTIOCHARES ANTILLANA spec. nov.

Male. Very much like *N. cubensis*, wholly black, with blue and violet reflections, and agreeing closely in structure to that species. The only difference of importance is that the male genital plate, which in *N. cubensis* ends in a sharp-pointed tooth each side, in *N. antillana* ends in short, rounded lobe, alike in all three specimens.

Length of fore wing 8 to 11 mm.

From Barbados, August to December (Spencers). Type M. C. Z. No. 25743.

EPISYRON CRESSONI Dewitz

The male is black; a white spot on each side of clypeus; a broad orbital streak yellowish white, reaching nearly to vertex; a narrow yellowish band across tip of pronotum, a white spot each side on basal part of third abdominal segment, the last dorsal segment somewhat rufous, but white at tip; the mid femora rufous except base and tip, the hind femora rufous except basal third, and the hind tibiae rufous except extreme tip, spurs are pale; inner one of hind tibia nearly equal to basitarsus.

Length of fore wing 6 mm.

Allotype from Mona Island, April (Ramos).

PRIOCNEMIS URSULA spec. nov.

Body black, much of it covered with a fine sericeous pile or bloom; clypeus, mandibles, basal joint of antennae, and a few joints beyond

yellowish, rest of antennae brown; legs black; wings hyaline, venation black.

Clypeus above about as broad as vertex, nearly evenly rounded below, fully two and one-half times as broad as long, with a few fine hairs; front with fine, pale hairs, and vertex with some longer ones; ocelli in nearly equilateral triangle, laterals a little (but not much) nearer to each other than to the eyes; a short median groove above base of antennae, latter slender, second plus third joints not as long as vertex-width; pronotum scarcely constricted behind, with a broadly arcuate hind margin; mesonotum not humped in middle, scarcely hairy, scutellum and metanotal lobe with erect black hair; propodeum with rather long, fine, pale hairs above.

Abdomen hairy only toward tip and somewhat beneath; legs moderately slender, hind tibia above with about ten teeth with a short spine, and a row of spines on outer part; inner spur of hind tibiae two-fifths of basitarsus.

The fore wings have the marginal cell rather longer than space to the tip of wing, three times as long as broad, outer side nearly straight; second submarginal cell oblique, below nearly twice as long as high, receiving the first recurrent vein beyond the middle; the third submarginal cell plainly longer than second, but not as much wider as in many species, outer margin bent near median vein, receiving the second recurrent vein (almost straight) much before middle; in hind wings the anal vein ends much before the fork.

Length of fore wing 6.5 mm.

Female from Villa Altigracia, San Domingo, July (Darlington)
Type M. C. Z. No. 25741.

In general very similar to *P. salti* Bks. which differs in the yellowish tip to the abdomen.

PRIOCNEMIS ARIOLES spec. nov.

Head and thorax black, abdomen reddish except black tip, the fifth segment above bluish, thoracic notum bluish, legs black, femora and tibiae somewhat bluish; antennae black; fore wings nearly evenly infumate, slightly darker toward costal tip than behind, hind wings slightly smoky.

Clypeus no wider than face below, with a few pale hairs, about two and one-half times as broad as long, truncate below; vertex as broad as face below, scarcely convex, with a few erect hairs each side, none on front; ocelli in a rather low triangle, the laterals much nearer each

other than to eyes; a groove from anterior ocellus to base of antennae.

Pronotum plainly contracted behind, the margin slightly arcuate; mesonotum almost humped in middle, with one or two erect bristles each side and a pair on scutellum, pleura bare; propodeum with only faint, erect, pale hair above, a whitish pile across base, and an elongate spot each side toward hind margin, surface minutely granulate, no median groove. Abdomen hairy on venter and apical third above. Legs not especially slender, mid tibiae with two rows of short spines above, hind tibiae with a row of seven or eight oblique teeth, a spine beyond each, and an outer row of short spines; inner spur of hind tibia hardly two-fifths of basitarsus.

Marginal cell of fore wings about its length from wing-tip, two and one-half times as long as broad, outer side convex; second submarginal cell a little longer than high, but little narrowed above, receiving the first recurrent vein at middle; third submarginal cell much longer than second and much wider behind, one-third narrowed above, receiving the second recurrent vein (slightly curved) a little before middle; in hind wings the anal vein ends much before the fork.

Length of fore wing 6 mm.

Female from Constanza, Valle Nuevo, San Domingo, 21 August, 3- to 4000 ft. (Darlington). Type M. C. Z. No. 25740.

The Antillean species with a more or less reddish abdomen can be tabulated as follows:—

- | | |
|---|--------------------|
| 1. Fore wings hyaline with two broad dark bands | <i>pulchellus</i> |
| Fore wings without bands | 2 |
| 2. Thorax wholly reddish | <i>christopheï</i> |
| Thorax black | 3 |
| 3. Third submarginal cell no longer than second, higher than long | <i>pareus</i> |
| Third submarginal cell much longer than second, and much longer than high | 4 |
| 4. Wings hyaline; hind legs very long, body about 4.5 mm. | <i>dovi</i> |
| Wings plainly infuscate, hind legs not so long, body 7 mm. | <i>arioles</i> |

PRIOCNEMELLA DOMINGENSIS spec. nov.

Head, propodeum, and pleura black, thorax and abdomen above blue. Fore wings black, violaceous, hind wings infuscated, also with violet reflections; antennae and legs black, the femora and tibiae above, and the front coxae iridescent bluish, also basal joint of antennae above.

Clypeus large, extending laterally under the eyes, with long, black

hairs, lower margin narrowly smooth and coming to a blunt point in middle; front and vertex with long black hair, one each side on vertex very long; third antennal joint equal to vertex-width. Ocelli close together, the laterals more than twice as close to each other as to the eyes; groove from anterior ocellus to the antennae. Scattered erect black hairs on notum and scutellum, short hair on pleura; pronotum almost angled behind. Propodeum minutely, transversely striate, more distinctly so than in *P. violaceipes*, above and on sides with sparse, erect black hair.

Abdomen hairy near tip and below, scarcely so near base. Legs slender, spined as in *P. violaceipes*, the mid and hind tibiae with two rows of erect, short black spines, no teeth, and evenly short spines on the tarsal joints; claws with an erect, small tooth; long spur of hind tibia about two-fifths of the basitarsus.

Venation of wings as in *P. violaceipes*; the marginal cell long and pointed; second submarginal oblique, about one and one-half times as long as high, receiving the first recurrent vein near middle; the third submarginal cell much longer, about one-third narrowed above, receiving the second recurrent also near middle, this recurrent is more sinuously curved than that in *P. violaceipes*.

Length of fore wing 10.5 to 11 mm.

Two females from near and southeast of Constanza, Valle Nuevo, San Domingo, August, 3 to 7000 ft. (Darlington). Type M. C. Z. No. 25739.

Except for the striking difference in color of thorax and abdomen, and slight differences in structure, it is practically the same as *P. violaceipes* of Cuba.

PRIOCHILUS

A few Neotropical species have much the appearance of *Priocnemis*; however, the last joint of hind tarsi has spines beneath, but not laterally; the hind tibia has no real teeth like *Priocnemis*, but spines in rows, some as long as the diameter of the joint; the claws are cleft, the inner part broader than the outer part, and somewhat obliquely truncate; the palpi are slender as in *Priocnemis*.

Pompilus nobilis Fabr. is the genotype; *Salix opacifrons* Fox from Jamaica goes in the genus, although smaller than most others. In South America there are *regius* Fabr., *diversus* Smith, *scrupulus* Fox, *sericeifrons* Fox and others. Mr. Williams in his paper "Studies in Tropical Wasps", 1928, p. 141, calls attention to *nobilis* and *regius* as possibly forming a new genus.